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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/235,153	01/22/1999	WILFRED A. KELLER	SB-B750	5109

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EXAMINER	
EINSMANN, JULIET CAROLINE	

ART UNIT	PAPER NUMBER
1634	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No. 09/235,153	Applicant(s) GEORGES ET AL.	
	Examiner Juliet C Einsmann	Art Unit 1634	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 18 March 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☐ The period for reply expires _____months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☒ The proposed amendment(s) will not be entered because:

   (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☒ they raise the issue of new matter (see Note below);

   (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☒ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: *See Continuation Sheet*.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☐ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: *43*.

   Claim(s) rejected: *34-42; 44-66*.

   Claim(s) withdrawn from consideration: _____.

8. ☐ The proposed drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

Continuation of 2. NOTE:
(a) The amendment filed 3/18/02 changes the scope of the claims, thus requiring further search and consideration. For example, the addition of the limitaiton "said plant being of a type used as an animal feed" appears to narrow the scope of the claims. Furthermore, the amendment to claim 34, "said protein being non-native to said secondary metabolic pathway" raises new issues under 112 2nd paragraph. The amendments to the method claims appear to narrow the scope of the claims.
(b) The amendment filed 3/18/02 raises the issue of new matter. Applicant is reminded that MPEP 2173.05(i) requires "Any negative limitation or exclusionary proviso must have basis in the original disclosure. See Ex parte Grasselli , 231 USPQ 393 (Bd. App. 1983) aff'd mem., 738 F.2d 453 (Fed. Cir. 1984). The mere absence of a positive recitation is not basis for an exclusion. Any claim containing a negative limitation which does not have basis in the original disclosure should be rejected under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement."
The amendment enters two negative limitations into the claims "non-native" and "with the proviso that said plant is not rice or Arabidopsis." It is not clear that these limitations have basis original specification, and thus, these limitations "raise the issue" of new matter.
(c) These amendment do not reduce the issues for appeal because they in fact raise new issues for search and examination of the claims.
(d) The amendment includes the addition of fourteen claims while only canceling two.

Continuation of 5. does NOT place the application in condition for allowance because:

Applicant's remarks have been considered insofar as they apply to the pending claims, in light of the fact that the amendments to the claims have not been entered.

Applicant's remarks concerning Cheng et al. have been carefully considered, and are not persuasive. Applicant argues that hemicellulose is a final product found in plant primary and secondary cell walls, thus implying that hemicellulose is not a substrate in plant secondary metabolic pathways. However, hemicellulose is also a substrate in plant secondary metabolic pathways which involve the metabolism (i.e. via hydrolysis or other degradation or modification) of hemicellulose in plant pathways. Thus, while it may be a final product in the pathway that leads to hemicellulose, it is also a substrate in further secondary pathways. Furthermore, applicant argues that Cheng's methods are inapposite with the present invention because Cheng et al. transform the xylanase and render it unavailable. This is not persuasive. The method taught by Cheng et al. meets all of the limitations of the rejected method claims, as discussed in the rejection. Furthermore, Cheng et al.'s specific purpose is to produce nutritionally altered animal feed (see Abstract, for example).

Applicant argues that Murata et al. are not concerned with altering the nutritional profile of the plant. However, as previously stated, the alteration of the nutritional profile of the plant when transforming it with a gene encoding choline oxidase is a necessary effect of such a transformation. Murata et al. completes such a transformation, and thus changes the nutritional profile of a plant whether they were aware of this feature of their method or not. Applicant further argues that Willmitzer et al. are very clear that it is not their purpose to change the physical characteristics of the plant itself, citing language from Willmitzer et al. that notes that their invention comprises transgenic plants transformed with nucleic acids encoding enzymes "with the exception of enzymes conferring improved growth properties or desirable physical characteristics to living plants producing them." However, Willmitzer et al. further state that "the enzyme will typically not confer improved growth properties (e.g. increased resistance against pests or pathogens), a higher content of nutrients (by means of an altered amino acid composition) or desirable physical characteristics (i.e. reduced viscosity of fruit products) to a plant (if it does, this will be incidental to the true purpose which is to synthesize the enzyme) (emphasis added) (p. 3, lines 14-21)." Thus, Willmitzer et al. are not teaching away from plants with desirable physical characteristics, they are simply not transforming plants with these effects as the goal. The rejection is quite clear in providing that the motivation for production of transgenic plants expressing a heterologous nucleic acid that encodes choline oxidase is to provide a means for the production of this industrially useful enzyme. Thus, the examiner concludes that Willmitzer et al. do not teach away from the claimed invention, and the rejection of record is maintained.

Finally on page 15, Applicant's traverse the assertion that the methods of Murata et al. inherently meet the method steps of the claims of record. Applicant asserts that Murata et al. do not select a nucleic acid for its ability to encode a protein capable of modifying utilization of a substrate in a secondary metabolic pathway associated with the nutritional profile of a plant. However, Murata et al. specifically select a nucleic acid encoding choline oxidase for transformation of the plant, selecting a nucleic acid encoding choline oxidase for its ability to encode a protein capable of modifying choline, which is inherently a substrate in a secondary metabolic pathway associated with the nutritional profile of a plant. Thus, Murata et al. do in fact meet this positive selection step.

The rejections are maintained.

W. Gary Jones
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Technology Center 1600